

SECTION 4 MAINTENANCE

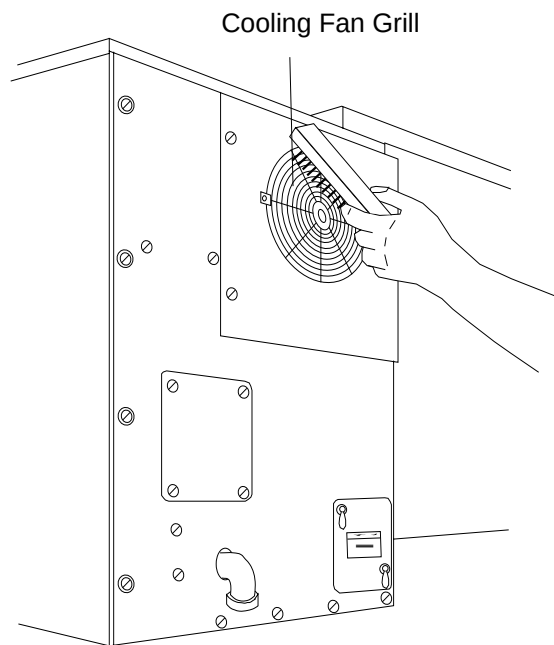


Figure 4-1. Oven Cooling Fan

CAUTION

Possibility of injury from rotating parts and electrical shock exist in this oven.

Turn off and lockout or tagout electrical supply to oven(s) before attempting to disassemble, clean or service oven(s).

Never disassemble or clean the oven interior with the fan switch or any other part of the oven turned "on".

NOTICE

If the oven is to be removed from its installed location for servicing, the following procedure is to be implemented.

1. Shut off main manual gas valve.
2. Disconnect gas connector from oven.
3. Unlock caster brakes and disconnect restraint cable.
4. Move oven to desired location for servicing.
5. When servicing is complete, move oven to original location.
6. Reconnect restraint cable and lock casters w/brakes.
7. Connect gas connector to oven.
8. Turn on manual gas valve.
9. Follow normal lighting instructions.

I. MAINTENANCE - DAILY

A. Exterior

The exterior of the conveyor oven must be cleaned daily. While the oven is still hot dampen a towel or grill pad with plain water or detergent and water and wipe down entire exterior of oven including the back and fan covers. Grease can build up on the top of the oven openings and the area above the windows. If this buildup does not steam off with a damp towel dip the towel in filter powder and rub lightly. Clean exterior any time at the end of each night, even before the oven has been turned off.

B. Cooling Fan

1. THE COOLING FAN GRILL AT THE REAR OF EACH OVEN CONTROL COMPARTMENT MUST BE CLEANED DAILY. ALSO CLEAN THE FAN LOCATED IN THE BOTTOM OF THE CONTROL BOX AND THE LOUVERS IN THE REAR OF THE CONTROL BOX.

2. Check air intake of the cooling fan daily. The best time to check is right after starting the oven.

IMPORTANT NOTE:

The cooling fan will operate when the blower switch is turned "on". It must operate to keep the electrical control cabinet below 140°F. (60°C.).

WARNING

IF FAN BLADE IS NOT ROTATING, BROKEN OR FAN ASSEMBLY IS MISSING FROM MAIN BLOWER MOTOR SHAFT, DO NOT OPERATE OVEN. REPLACE COOLING FAN BLADE BEFORE OPERATING OVEN. Serious damage could be done to the burner blower motor and/or the solid state electrical components if oven is operated while cooling fan is not running.

SECTION 4 MAINTENANCE

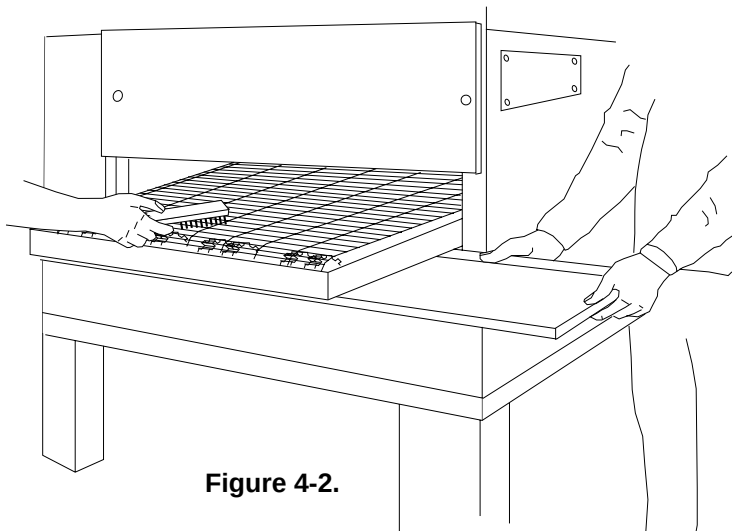


Figure 4-2.

C. Crumb Pans

Remove the crumb pan(s) at both ends of the oven. Crumb pans are removed by sliding out as shown in Figure 4-2. Wash the crumb pans in the pot sink.

CAUTION

Possibility of injury from rotating parts and electrical shock exist in this oven.

Turn off and lockout or tagout electrical supply to oven(s) before attempting to disassemble, clean or service oven(s).

Never disassemble or clean the oven with the fan switch or any other part of the oven turned "on".

II.MAINTENANCE WEEKLY - Oven Disassembly and Cleaning

Use the following instructions to clean the oven interior once a week. To clean the interior 2 people are required to disassemble the oven. Disassemble the oven the night before and soak the removed parts overnight. Then clean the oven in the early morning before production and line setup. Approximately 2 hours is required.

When cleaning your Series PS200-R68 oven note the following:

PRECAUTIONS-

1. Do not use excessive water or saturation of oven insulation will occur.
2. Do not get water in the fan area located in the bake chamber.

A. Removing conveyor from oven for cleaning

1. Remove crumb pans, conveyor end stops and conveyor rear stops shown in Figure 4-2.

2. Remove upper end plugs from each end of oven. The two wing screws in each end plug are loosened and then the end plugs are removed and set aside. The wing screws should be held in the end plugs by locking washers. If your wing screws drop out of the end plugs order new screws from your local service agency.

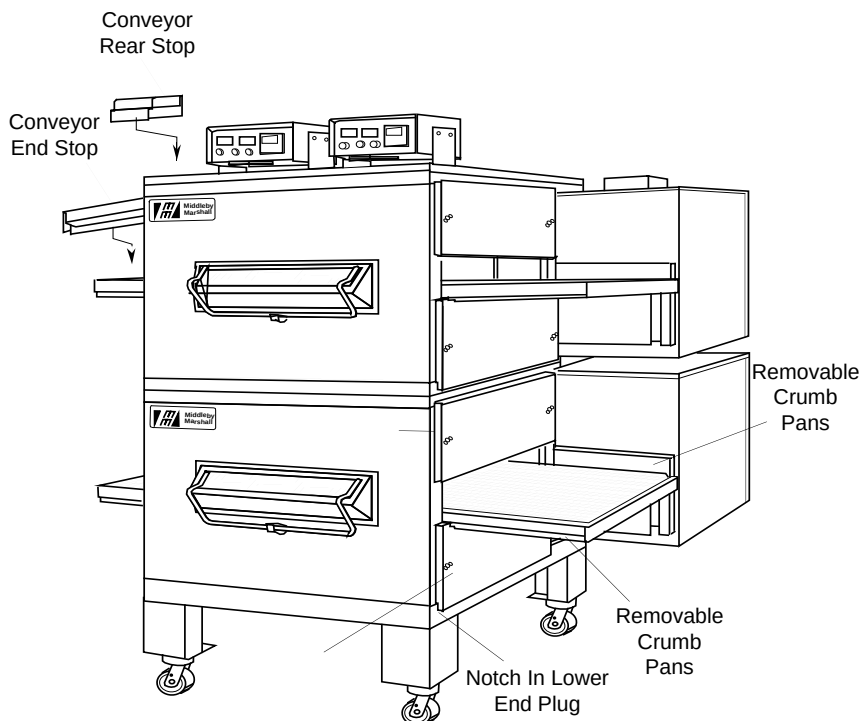
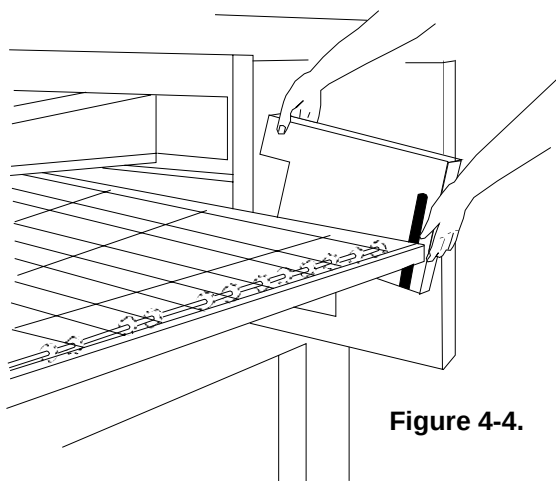
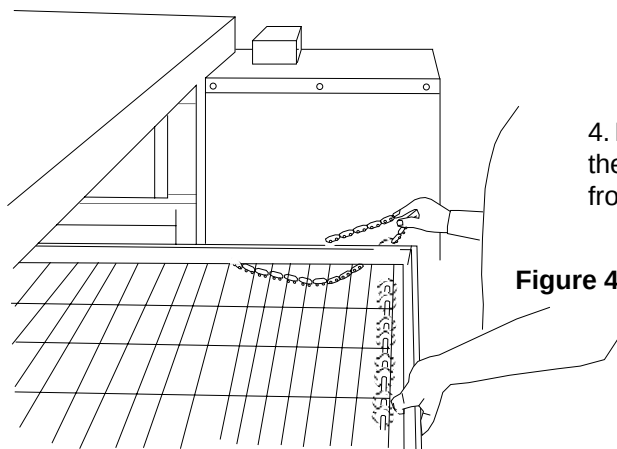


Figure 4-3.



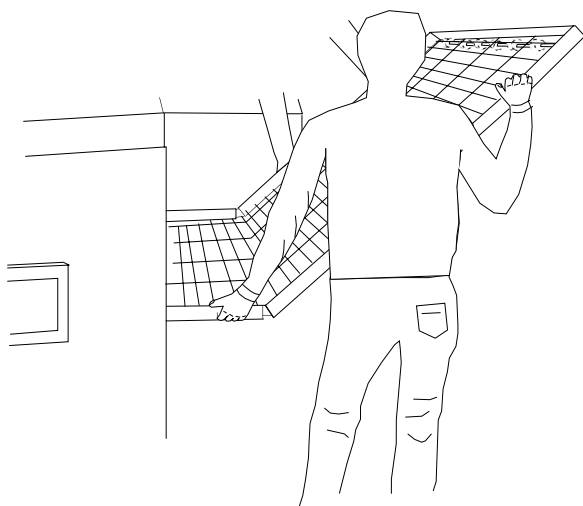
3. Remove conveyor drive chain cover as shown.

Figure 4-4.



4. Remove tension from drive chain by lifting and pushing the conveyor slightly into the oven. Remove drive chain from conveyor drive sprocket as shown.

Figure 4-5.



5. While one person pulls the conveyor out from the drive end of the oven the second person should lift the far end (opposite end) of conveyor until crumb tray slide is clear. Then both people can begin sliding conveyor out from the drive end of the oven, as shown, folding as they go. Move slowly and use caution as the conveyor chain and the drive sprocket can be easily damaged.

Figure 4-6.

6. Remove the lower end plug from each end of the oven. Refer to Figure 4-3.

SECTION 4 MAINTENANCE

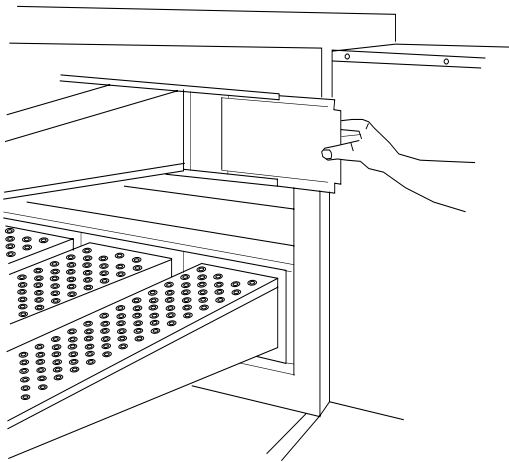


Figure 4-7.

B. Oven interior disassembly.

1. Slide blank plates straight out. There is a blank plate located at each end of the row of top fingers.

2. Remove air fingers. There are four bottom air fingers with 6 rows of holes and 2 top air fingers with 3 rows of holes.

You can remove top and bottom fingers and blank plates from each or either end.

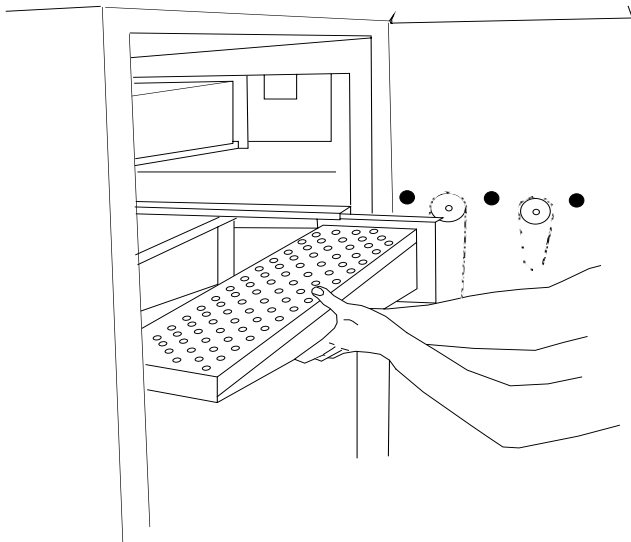
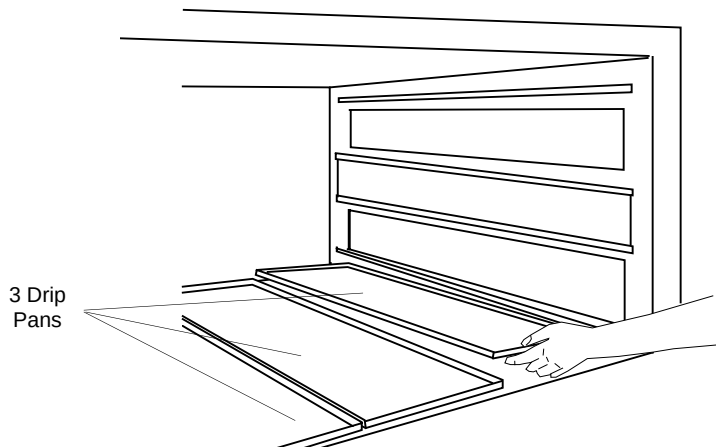


Figure 4-8.

3. Remove the air fingers by pulling the fingers at the back side and pulling straight out.

The finger assemblies should not be disassembled at this time.



3 Drip
Pans

4. Remove the 3 drip pans from the bottom of the oven. Refer to Figure 4-9

Figure 4-9.

C. Window disassembly for cleaning.

1. Remove the window by opening it and unscrewing the window knobs from each end. Place the window knobs on top of the oven in a cup so they can be easily found the next day.

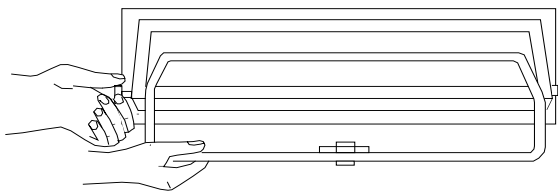


Figure 4-10.

2. Push the window all the way inside the oven, making sure it is clear of the frame. Now, turn the window sideways while inside the oven and then remove it. This will avoid window breakage.

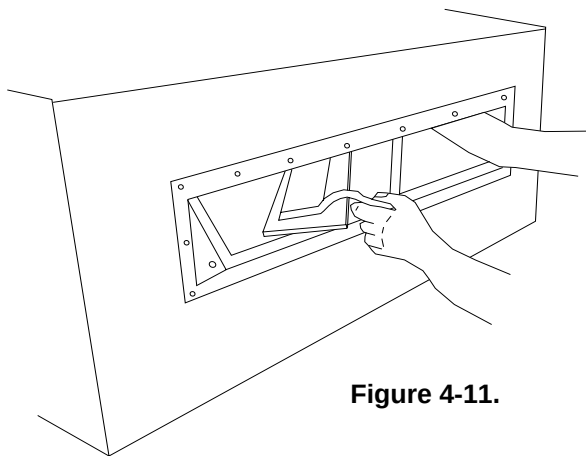


Figure 4-11.

D. Loading the soak bin.

1. Move the soak bin to the dish rack. Close the soak bin drain and add 2 gallons of degreaser and then begin filling with hot water.

2. First load the parts from one oven into one end of the soak bin as follows.

a. Fold the conveyor and load it into the end of the soak bin as shown in Figure 4-12.

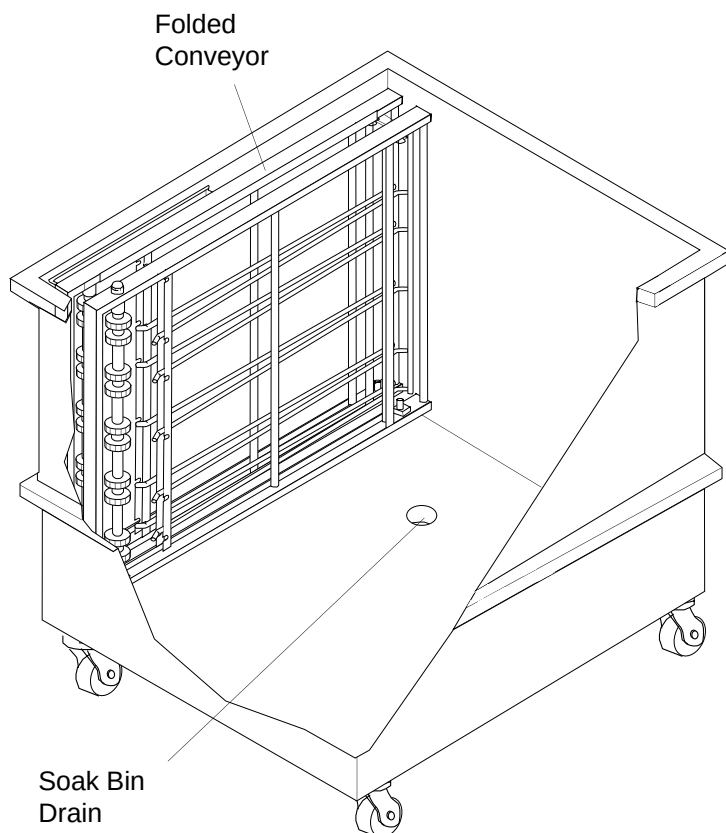


Figure 4-12.

SECTION 4 MAINTENANCE

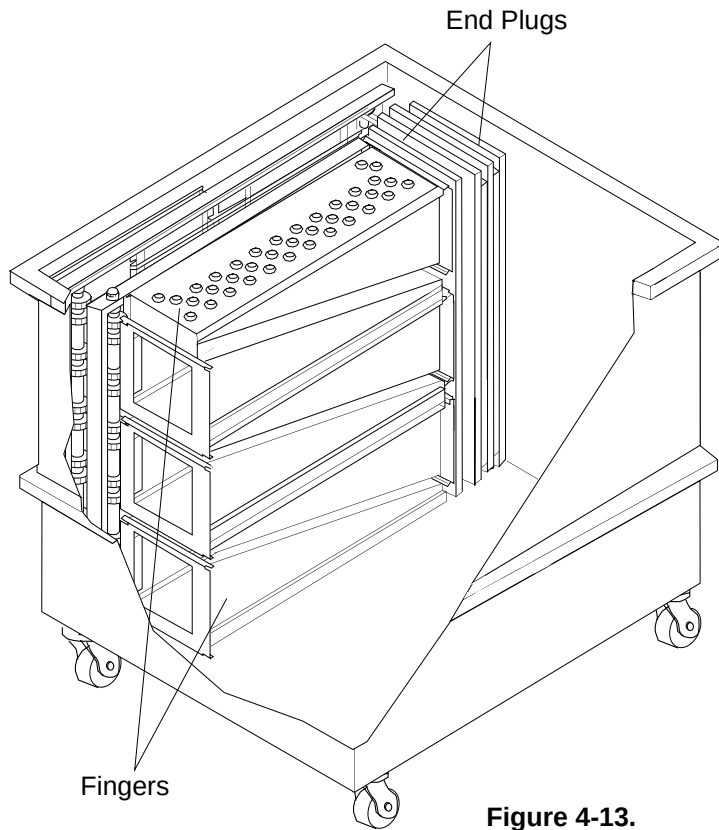


Figure 4-13.

b. Place the end plugs in the soak bin as shown in Figure 4-13.

Then place the fingers in the soak bin by placing the slanted sides of the fingers together to conserve space as shown in Figure 4-13.

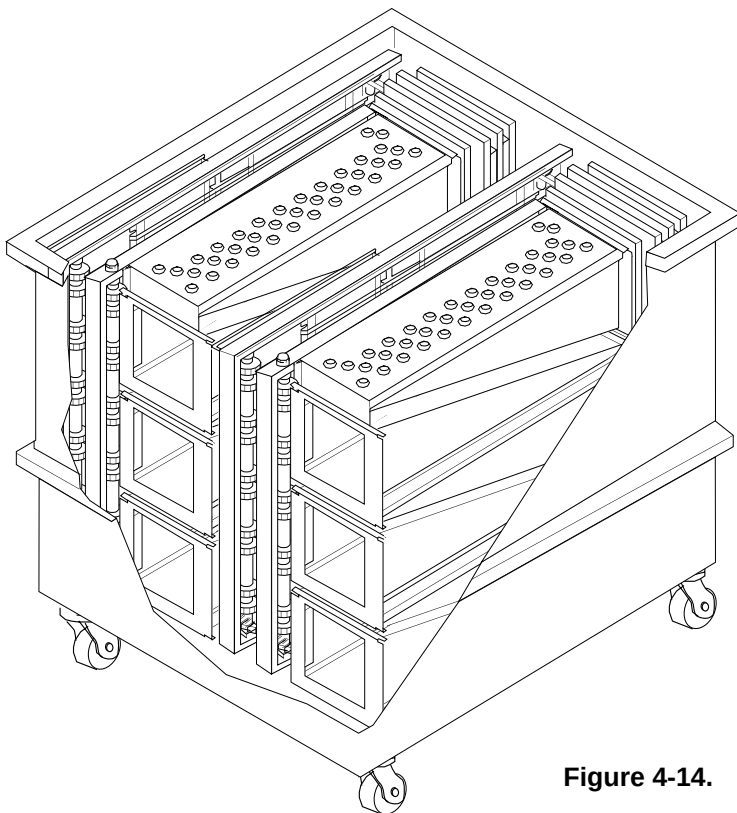
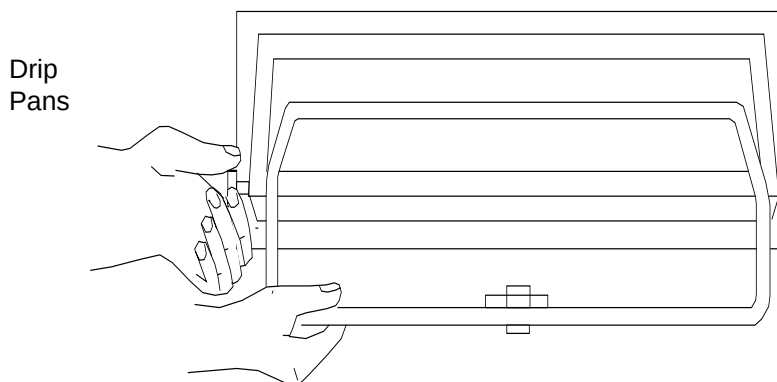


Figure 4-14.

3. Repeat Steps a and b for the second oven. Refer to Figure 4-14.

Windows (Blank plates
placed under windows)



4. Place the drip pans from both ovens on top of the fingers, then the blank plates and last place the windows on the drip pans so they will not be damaged. Refer to Figure 4-15.

5. Allow to soak overnight.

Figure 4-15.

E. Cleaning parts that were soaked overnight.

Cleaning takes 2 people. One to clean the oven and one to clean the parts.

You will need:

- Boots
- Rubber Gloves
- Steel brush
- Kote Spray
- Squirt bottle filled with water
- Towels
- Grill pads
- Black pad
- Putty knife

NOTE: Before cleaning parts from soak bin cover any dishes or other equipment or pans in the dish area with plastic sheets. Prepare an area for spraying parts with Kote.

1. Clean windows first.

2. Scrub crumb pans, end plugs, drip pans and blank plates. Then run them through the dish machine, dry thoroughly and then spray with Kote.

3. Clean conveyor by unfolding carefully on dish sink counter. Rinse away any loose material from conveyor chain and if needed scrub with small steel brush. Dry the conveyor thoroughly and spray with Kote.

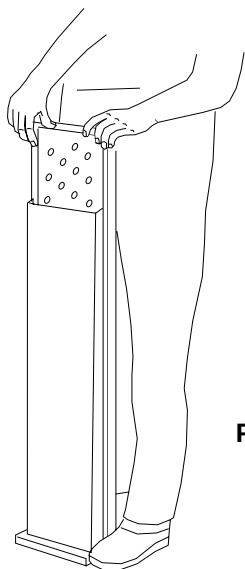


Figure 4-17.

- c. Place fingers in an upright position to remove the outer plate. Gently step on the lip of the finger and pull the outer plate off.

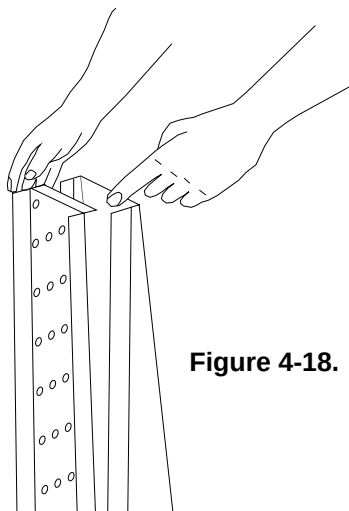


Figure 4-18.

- d. To remove the inner plate, pull plate out and then up.
- e. Scrub the parts using the black pad if necessary and then run the parts through the dish machine and dry thoroughly. Spray the finger parts with Kote.
- f. Reassemble the inner plate, keep your fingers clear so you won't pinch them. The inner plate of a finger will only go on in one way because of its design. Refer to Figure 4-18.
- g. Replace the outer plate by placing your hands flat on the top of the plate and pushing down. Keep your fingers clear so you won't pinch them. Refer to Figure 4-17.

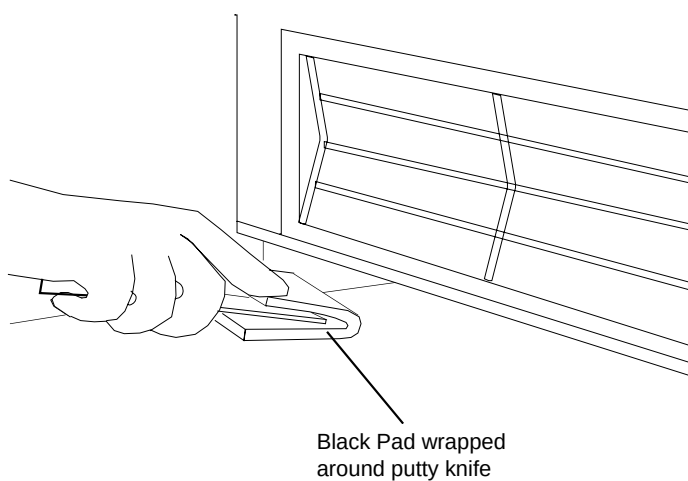


Figure 4-19.

F. Cleaning interior of oven.

1. Use the squirt bottle to spray the inside of oven with water. Do not spray into fan areas.
2. Wipe off all interior surfaces with damp grill pad. Use your black pad and putty knife to loosen any baked on material. Refer to Figure 4-19.

SECTION 4 MAINTENANCE

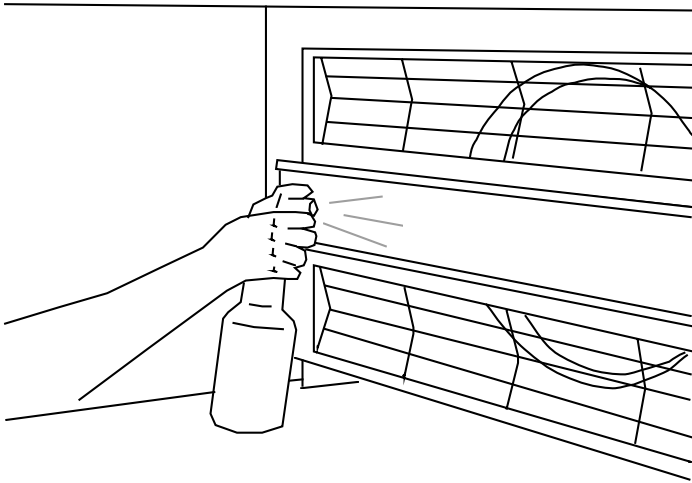


Figure 4-20.

3. Clean the oven exterior as needed and dry the oven inside and out.

4. Spray all interior surfaces, **except the fan area**, with Kote. Cover all areas well. Refer to Figure 4-20. Be sure the oven is dry before spraying. Kote does not work well on wet surfaces. A thorough spraying with Kote is your best tool for easy cleaning because it prevents grease splatters from baking on. Areas that are not sprayed with Kote will need hard scrubbing rather than light cleaning at the next weekly cleaning.

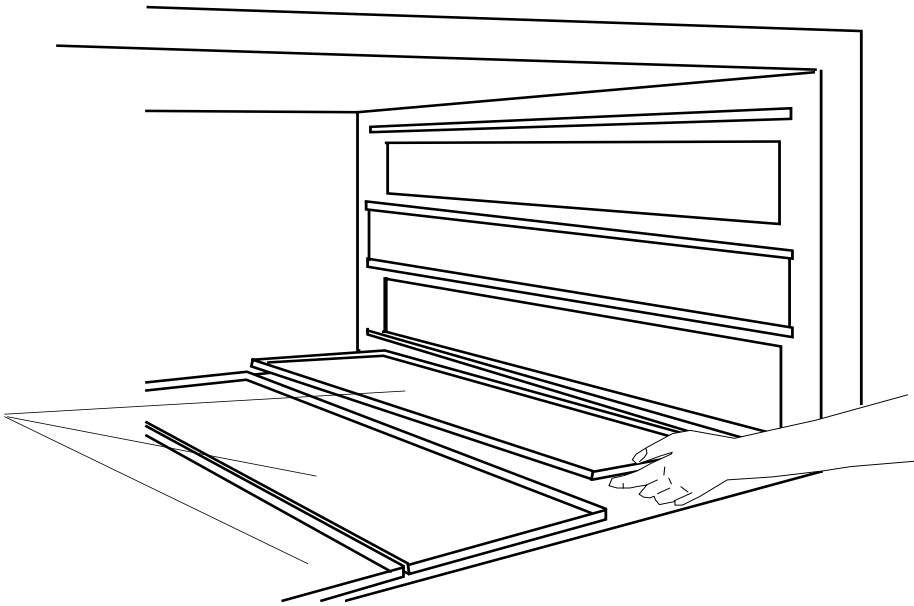


Figure 4-21.

G. Oven reassembly.

1. Replace the 3 drip pans into bottom of oven. Refer to Figure 4-21.

2. Reassemble bottom fingers into oven first by pushing in on their back side.
Refer to Figure 4-16 for correct finger position in oven.

IMPORTANT: Only M6 fingers fit in the bottom row. All M3 finger cover plates have extended lips at front. This extended lip will not allow these fingers to be installed in the bottom row.

a. **IMPORTANT:** When inserting fingers the tab on the outer plate must be in the groove as shown in the illustration. There is a blocking tab on the outside of the groove which will prevent inserting the finger in the groove if the outer plate is moved away from the flange of the finger manifold. Refer to Figure 4-22.

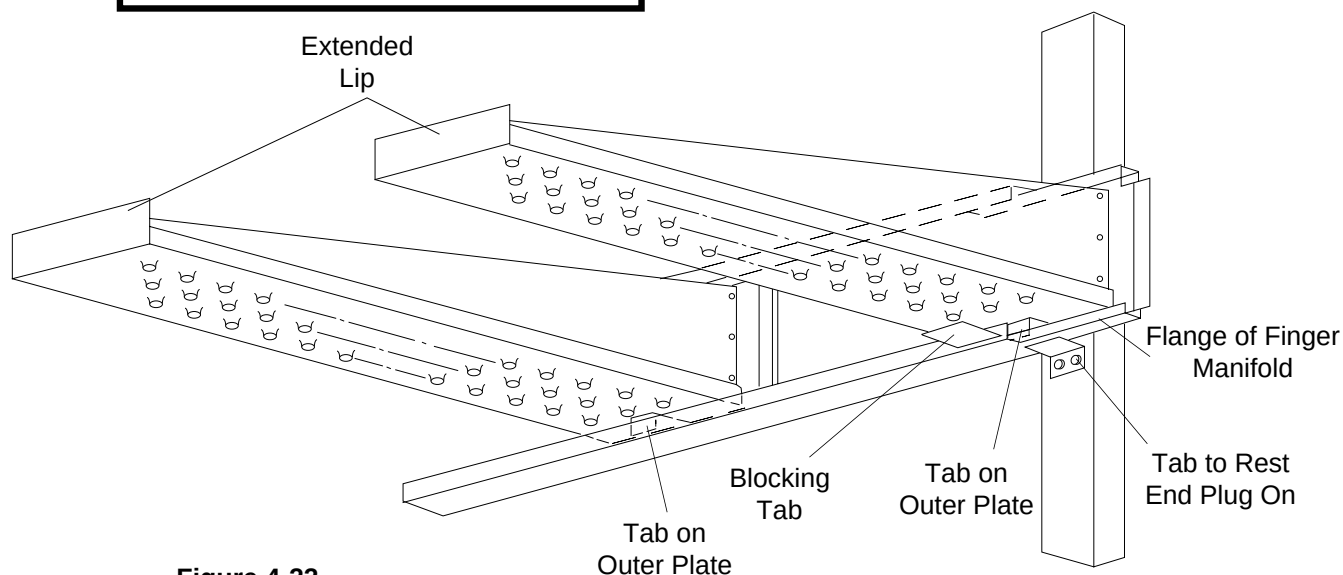


Figure 4-22.

SECTION 4 MAINTENANCE

b. Install fingers and blank plates correctly with edges interlocked. There must be no opening between edges of filler plates. Refer to Figure 4-23.

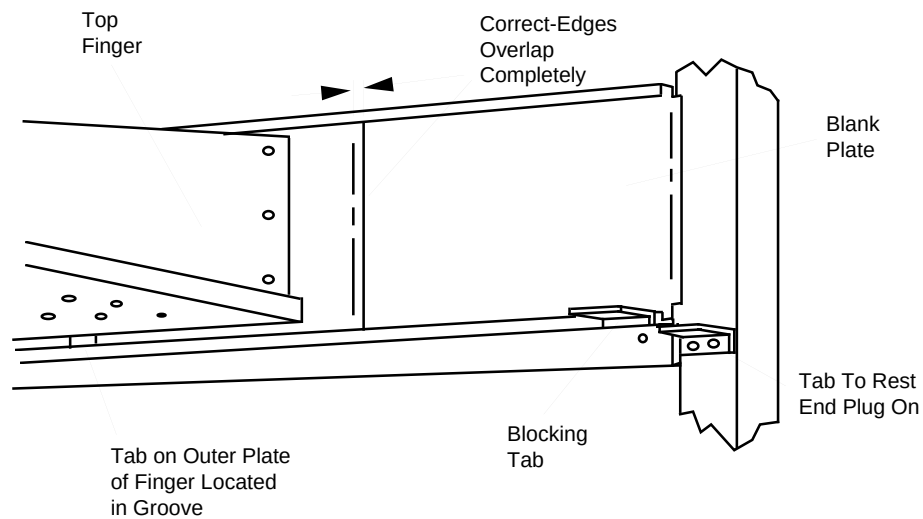
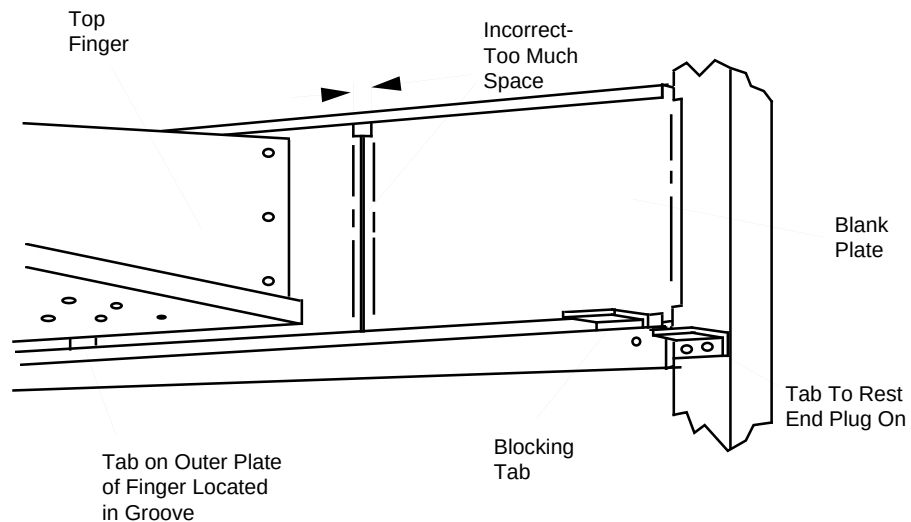
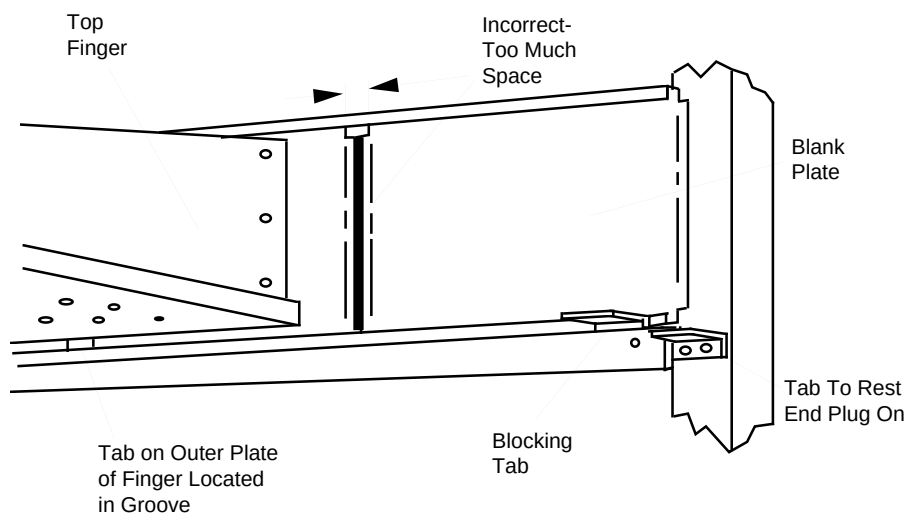


Figure 4-23.

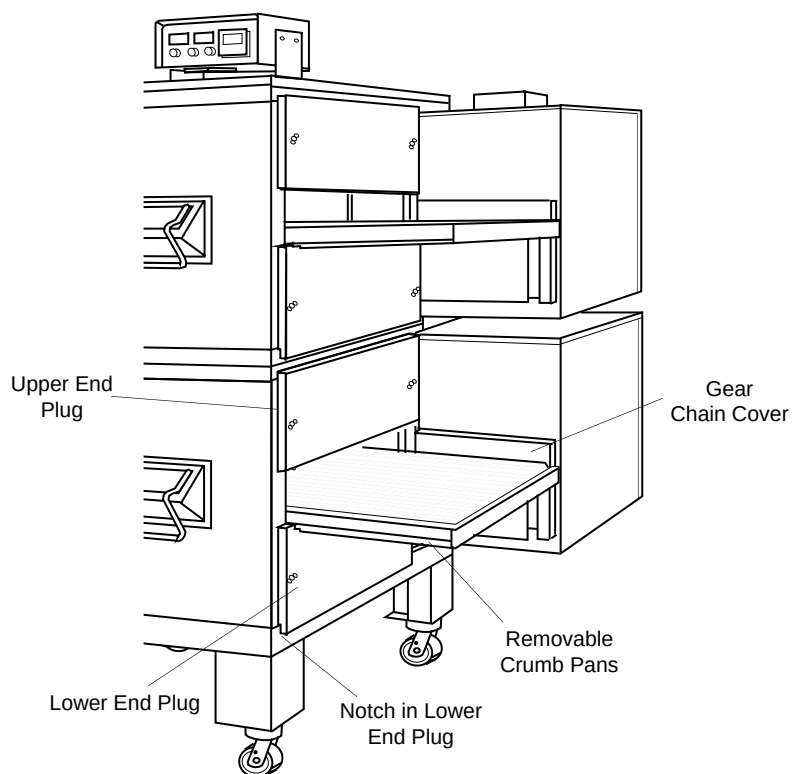


Figure 4-24.

3. Reassemble lower end plugs to both ends of oven. Refer to Figure 4-24. Notice that the lower end plugs have a notch in them. Position the lower end plugs against the oven and then up into place. Use the wing nuts to secure the end plugs to the oven.

4. Reassemble top fingers and blank plates into oven. Refer to Figure 4-16, 4-22 & 4-23.

5. Spray Kote on any areas that may have been wiped off.

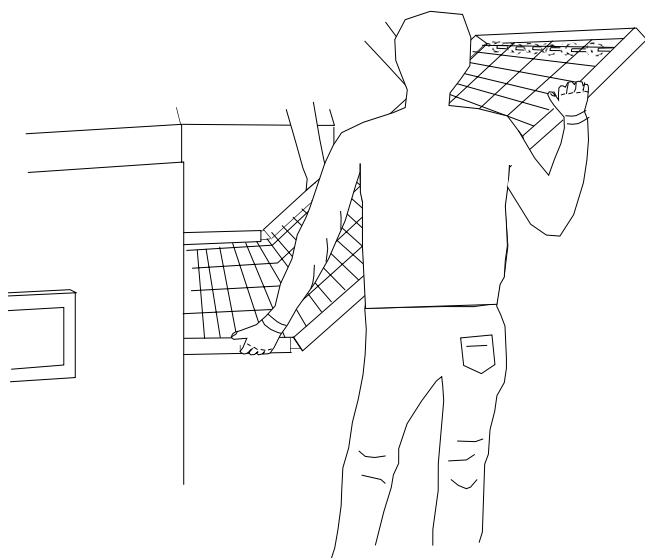
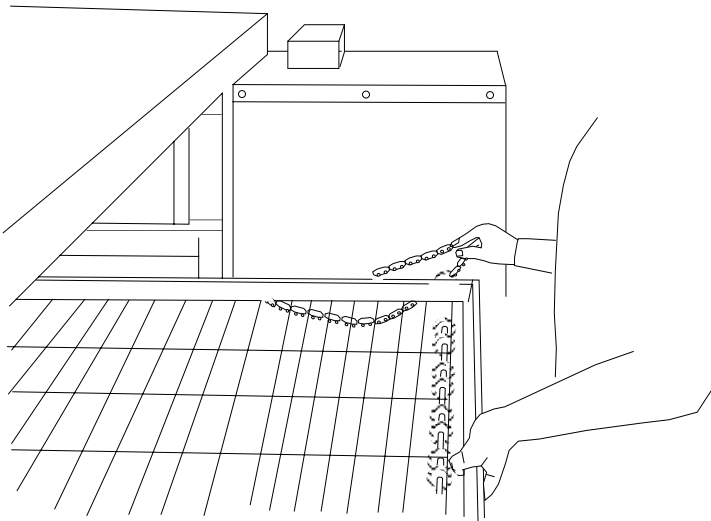


Figure 4-25.

6. Using 2 people install the conveyor.

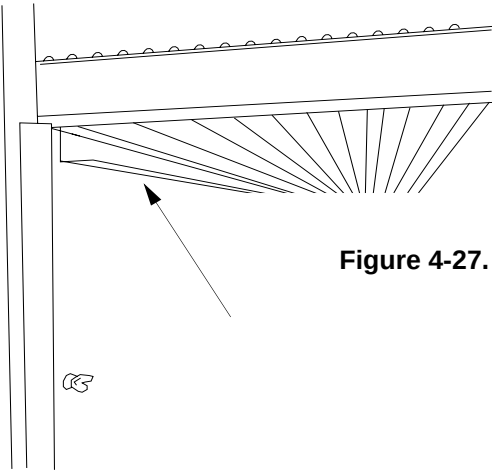
a. Lift the conveyor and start it into the drive end of the oven. The drive end of the oven is the end with the machinery compartment attached. Slide the conveyor along the side guides until the crumb tray slide falls into place at the opposite end.

SECTION 4 MAINTENANCE



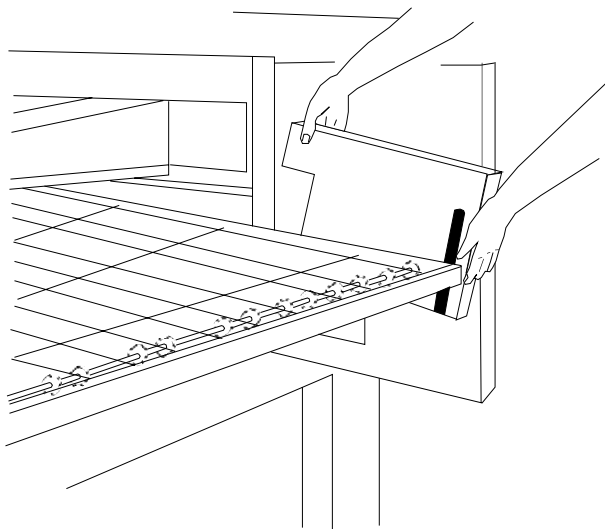
b. Attach drive chain by lifting conveyor and attaching drive chain to conveyor drive sprocket.

Figure 4-26.



c. The angle plate located on the underside of the conveyor must be against the lower end plug. This is true on both ends of oven.

Figure 4-27.



d. Reassemble conveyor drive chain cover.

Figure 4-28.

e. Checking conveyor belt tension.

NOTE: Oven conveyor belt must be cool when adjusting belt. **Do not adjust belt if HOT.**

AA. With the conveyor assembly in the oven, stand at one end of conveyor and check tension by lifting the conveyor belt at the center of the oven chamber opening. The belt should not lift higher than 3 to 4 inches (76mm to 102mm).

BB. Adjust conveyor chain tension screws (located on left end of oven) for the 3" to 4" deflection shown in the photo.

CC. If conveyor belt **is still not** under proper tension recheck your adjustment of the conveyor tension screws. If correct adjustment is not possible call your service agency.

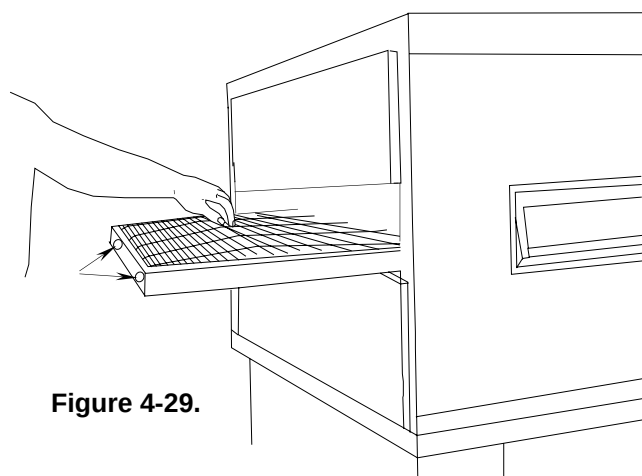


Figure 4-29.

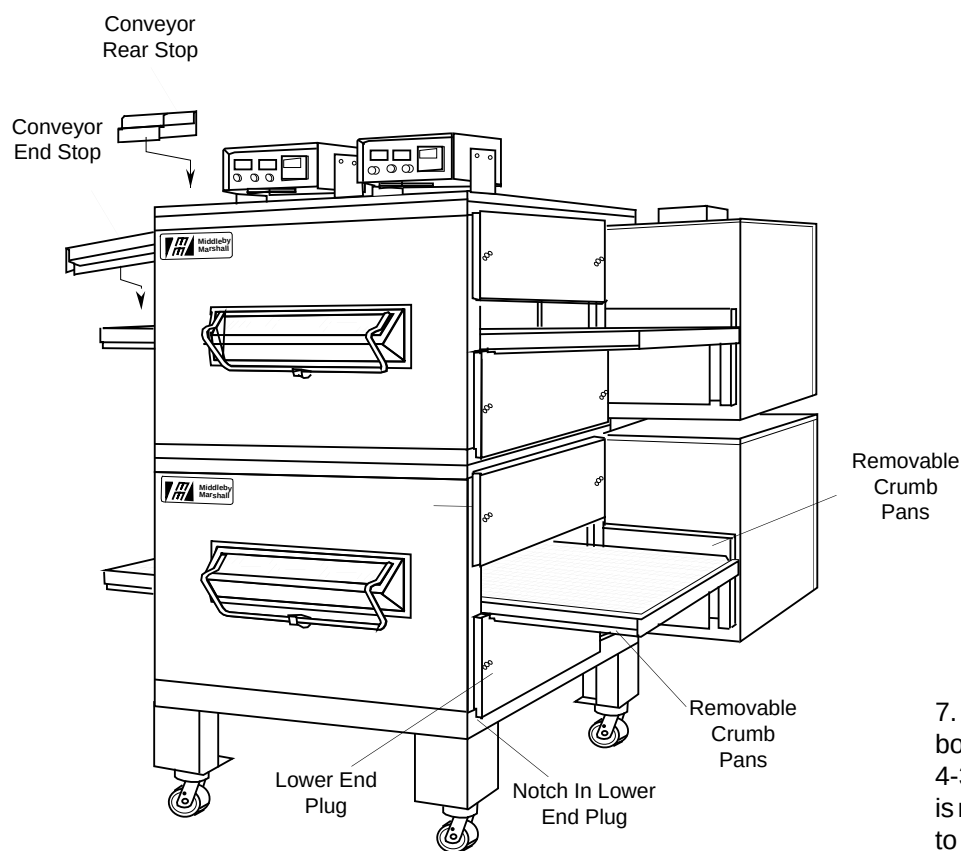


Figure 4-30.

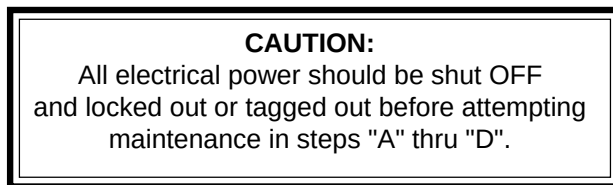
f. Reinstall conveyor end stop and rear stop.

7. Reassemble upper end plugs to both ends of oven. Refer to Figure 4-30. Notice that the upper end plug is not notched. Secure the end plugs to oven using the wing nuts.

SECTION 4 MAINTENANCE

III. MAINTENANCE - EVERY 3 MONTHS

NOTE: It is recommended that the 3 Month Maintenance schedule be performed by an Authorized Middleby Marshall Service Agent.



A. Cleaning fan motor

NOTE: It is recommended that step "A" thru "D" be performed by an authorized Middleby Marshall Service Agent.

To gain access to the fan motor, open the machinery compartment door by removing three screws. Clean the fan motor, burner motor, conveyor motor and the surrounding area using either compressed air or CO₂. Thoroughly blow out the motor compartment and vents inside the motor. Failure to do this could cause premature failure of the electric motor.

B. Electrical terminals

Open machinery compartment door by removing three screws from the door. Tighten all electrical terminal screws on all components. Also tighten electrical terminal screws in the remote controls.

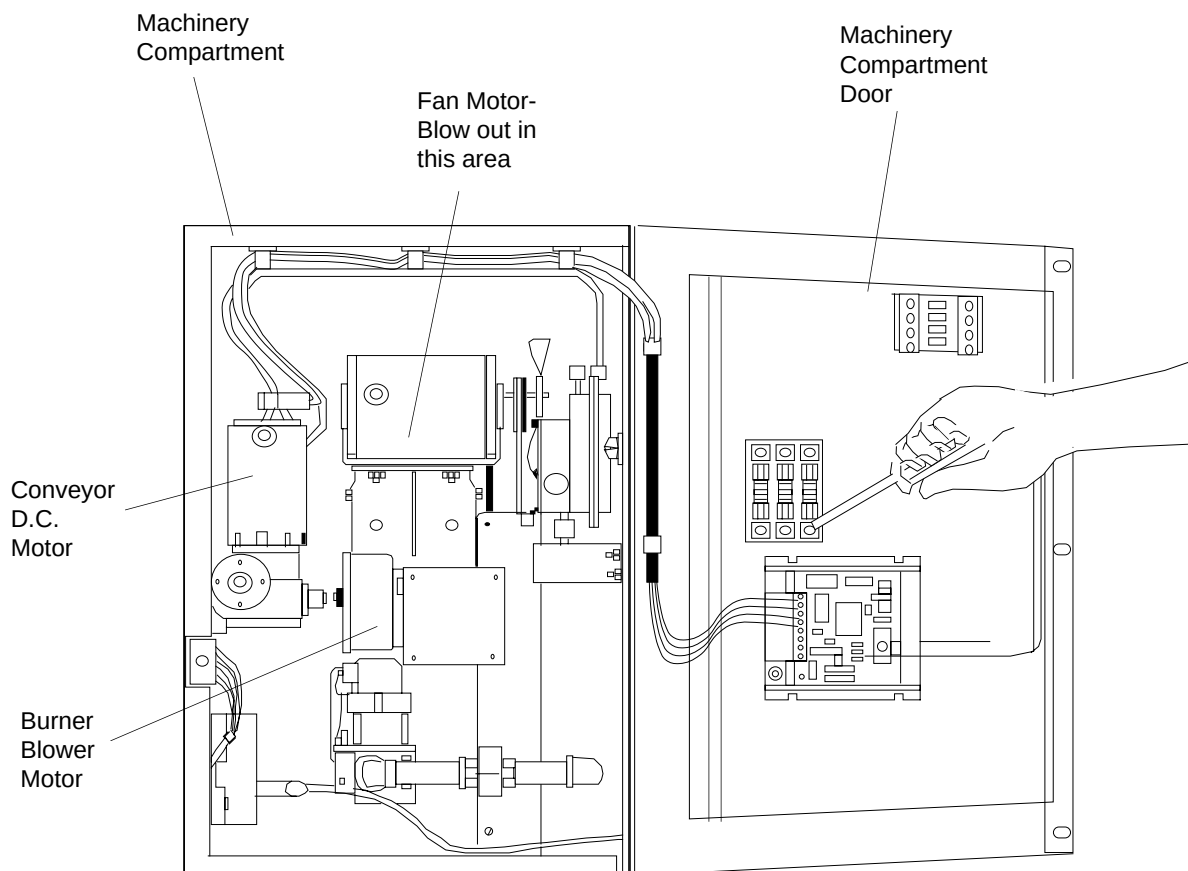
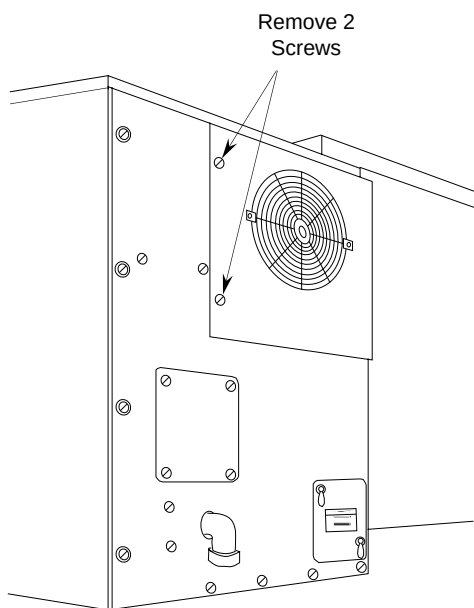


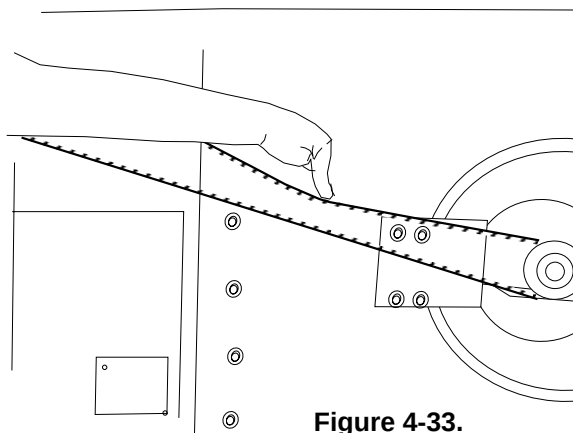
Figure 4-31.



C. Checking and/or replacing main blower fan belt

1. Check the main blower fan belt for proper tension and wear. To gain access you must remove the two (2) screws on the bottom lip of rear shroud along with the two (2) screws on the cooling fan guard plate.

Figure 4-32.



2. The fan belt should have no less than 1" deflection at the center and have no cracks or excessive wear. A spare belt is located inside the machinery compartment. Over tightening the belt will cause premature bearing failure and possible vibration problems.

Figure 4-33.

SECTION 4 MAINTENANCE

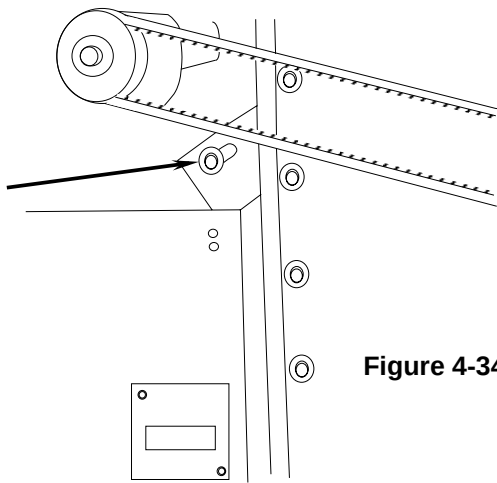


Figure 4-34.

3. If belt is loose or to replace belt loosen the tension locking bolts on the motor mounting bracket. Next pull back on the motor, do not over tighten or fan bearings may be damaged. Retighten locking bolts.

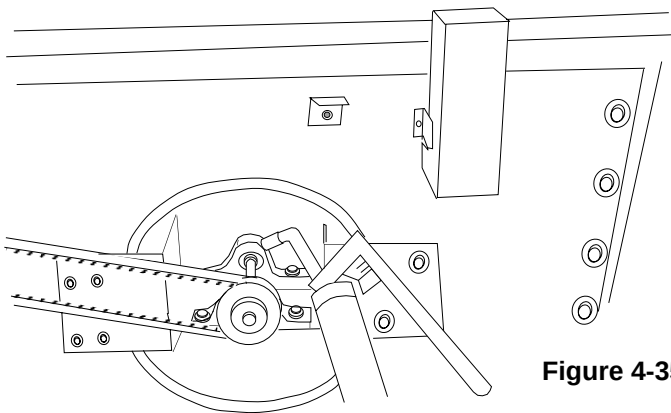


Figure 4-35.

D. Main Blower Fan Shaft Bearing Lubrication

Grease the 2 main blower fan shaft bearings using a special high temperature grease (MM P/N 17110-0015 Lithium base higher temperature grease). ONLY ONE PUMP of grease gun in each bearing is required. Over greasing will damage bearing seals which will accelerate grease loss and shorten bearing life. Wipe off any excess grease on and around the bearing. Replace rear shroud, oven will not operate without the rear shroud in place.

IV. MAINTENANCE - EVERY 6 MONTHS

NOTE: It is recommended that the 6 Month Maintenance schedule be performed by an Authorized Middleby Marshall Service Agent.

CAUTION:
All electrical power should be shut OFF
and locked out or tagged out before attempting
maintenance in steps "A" thru "C".

- A.** Check brushes on D.C. conveyor motor, when worn to less than 3/32" (2.2mm) replace.
- B.** Burner nozzle and electrode assembly should be cleaned and inspected. Also check your oven venting system.
- C.** Check conveyor shaft bushings and spacers. Replace them if they are worn.

MAINTENANCE PARTS

The following parts were shipped inside the control compartment of your oven to be used for preventive maintenance or as spares. It is recommended that whenever you use one of these parts you should order a replacement from your local authorized Middleby Marshall Parts Distributor.

QUANTITY	MIDDLEBY MARSHALL PART NUMBER	DESCRIPTION
2	28154-0003	TRM 9 Amp Fuse (See Figure 6-3)
1	22181-0034	Fan Belt (Refer to previous page for fan belt replacement.

NOTES: